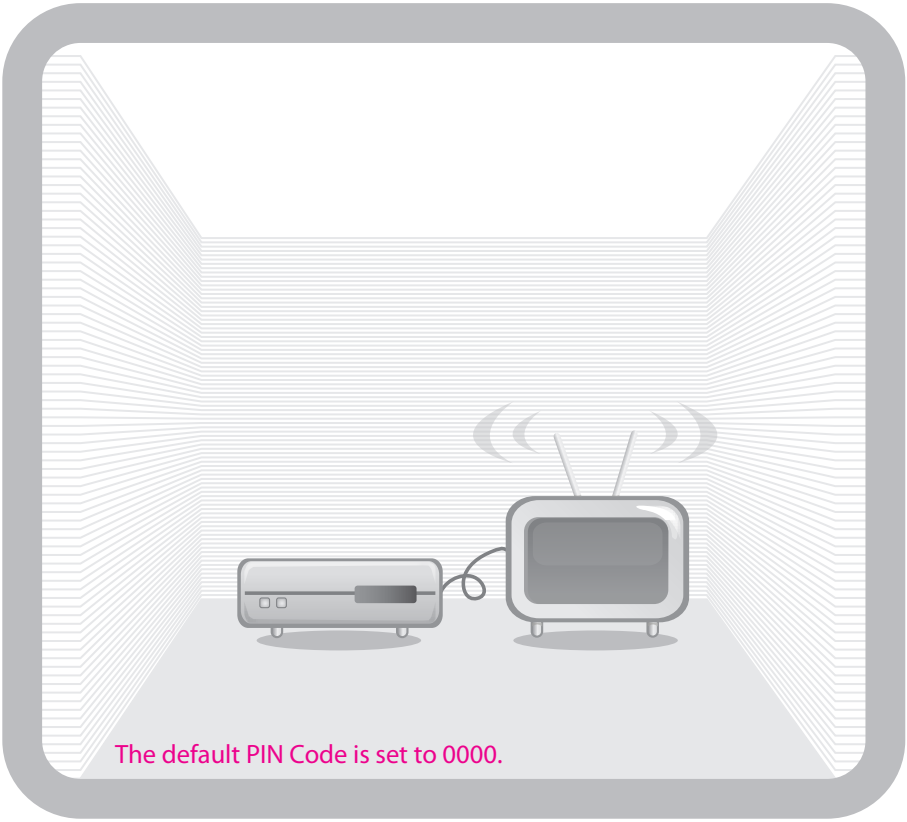
Digital Terrestrial MHP Receiver



User's Manual

DTT-3600

HUMAX
EASY DIGITAL

Notice

Thank you for purchasing a HUMAX product. Please read this user's manual carefully to be able to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference. The information in this user's manual is subject to change without notice.

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Warranty

The warranty does not cover parts which may become defective due to misuse of the information contained in this manual.

Trademarks

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- Conax is a trademark of Telenor Conax AS.

Warnings, Cautions and Notes

Throughout the whole manual, pay special attention to the following marks that indicate hazardous situations.

- **Warning**
  Indicates a hazardous situation which could result in serious injury.
- **Caution**
  Indicates a situation which could damage the equipment or other apparatus.
- **Note**
  Indicates additional information to make the user aware of possible problems and information of any importance to help understand, use and maintain the installation.

Notice

Meaning of Symbols

To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

This symbol indicates dangerous voltage inside the product that presents a risk of electric shock or personal injury.

This symbol indicates important instructions accompanying the product.

Customer information

According to art. 13 of the Legislative Decree 25th July 2005, no. 15 „Application of the Directives 2002/95/CE, 2002/96/CE and 2003/108/CE, regarding the reduction of dangerous substances in electric and electronic products, as well as the waste disposal".

The symbol with the crossed refuse bin, present on the product, indicates that the product must be collected separately from other refuse after his lifetime is expired.

This means that the customer must hand over the product at the end of the lifetime to an authorized collection center for electronic and electro technical refuse. As an alternative the customer can hand over the product to a dealer when he purchases an equivalent product, accordingly to the principle one in return for one.

A professional differentiated collection of no longer used products for recycling, utilization or disposal, helps to reduce negative consequences for the environment and the health. In addition the utilization of materials composing the product will be supported.

The illegal disposal of the product by the customer results in the application of the administrative fines according to Legislative Decree no. 22/1997 (article 50 and followings of Legislative Decree no. 22/1997).

Important notice

The batteries of your remote control are 2 x AAA type, 1,5VDC.
Do not mix different types of batteries or new and old batteries. Do not use rechargeable batteries. In order to avoid any risk of explosion, observe polarities indicated inside the battery compartment. Replace only with the type of batteries specified above. Do not throw them into fire, do not recharge them. If you are not using the remote control for a long period of time, remove the batteries. Please respect the environment and prevalling regulations! Batteries must be collected separately from other refuse! Before you dispose of batteries, ask your dealer whether they are subject to special recycling and if he will accept them for disposal.

Safety Warning

This product has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.

Safety Instructions and Precautions

1. **MAINS SUPPLY**
   90-250V a.c., 50/60Hz
   - Operate this product only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company.
   - Disconnect the product from the mains before you start any maintenance or installation procedures.
2. **OVERLOADING**
   - Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.
3. **LIQUID**
   - The product should not be exposed to liquid of any kind. In addition, no objects filled with liquid should be placed on the apparatus.
4. **CLEANING**
   - Disconnect the product from the wall outlet before cleaning.
   - Use a light damp cloth (no solvents) to dust the product.
5. **VENTILATION**
   - The slots on top of the product must be left uncovered to allow proper airflow into the unit.
   - Do not stand the product on soft furnishings or carpets.
   - Do not stack electronic equipments on top of the product.
6. **ATTACHMENTS**
   - Do not use any unsupported attachments as these may be hazardous or cause damage to the product.
7. **CONNECTION TO THE AERIAL**
   - Disconnect the product from the mains before connecting or disconnecting the cable from the aerial. Failure to do so can damage the aerial.
8. **CONNECTION TO THE TV**
   - Disconnect the product from the mains before connecting or disconnecting the cable from the TV. Failure to do so can damage the TV.
9. **LOCATION**
   - Place the product indoors to avoid exposing it to lightning, rain or sun.
   - Do not place it near a radiator or heat register.
   - Make sure it has more than 10 cm clearance from any appliances susceptible to electromagnetic influences, such as a TV or a VCR.
   - Do not block the openings with any object, and do not place the product on a bed, sofa, rug, or other similar surface.

- If you place the product on a rack or a bookcase, ensure that there is adequate ventilation and that you have followed the manufacturer's instructions for mounting.
- Do not place the product on an unstable cart, stand, tripod, bracket, or table where it can fall.
- A falling product can cause serious injury to a child or adult, and serious damage to the appliance.

10. LIGHTNING, STORM or NOT IN USE

- Unplug the product from the wall outlet and disconnect the antenna during a thunderstorm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-surges.

11. EXTRANEOUS OBJECTS

- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts.

12. REPLACEMENT of PARTS

- When replacement of parts is required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitution may result in additional damage to the unit.

Warning

1. To avoid damage of the power cord or plug;

- Do not modify or process the power cord or plug arbitrarily.
- Do not bend or twist the power cord.
- Make sure to disconnect the power cord holding the plug.
- Keep heating appliances as far as possible from the power cord in order to prevent the cover vinyl from melting.
- The mains plug, as a disconnection device, shall remain readily accessible by the user.

2. To avoid electrical shock;

- Do not open the main body.
- Do not insert metal or inflammable objects inside the product.
- Do not touch the power plug with wet hands.
- Disconnect the power cord in case of lightning.

3. To avoid damage of product;

- Do not use the product when it is out of order. If you continue to use the product when defective, serious damage can be caused to it. Make sure to contact your local product distributor if the product is out of order.
- Do not insert metal or alien substance into the slots for the modules or Smartcards. It may cause damage to the product and reduce its life span.

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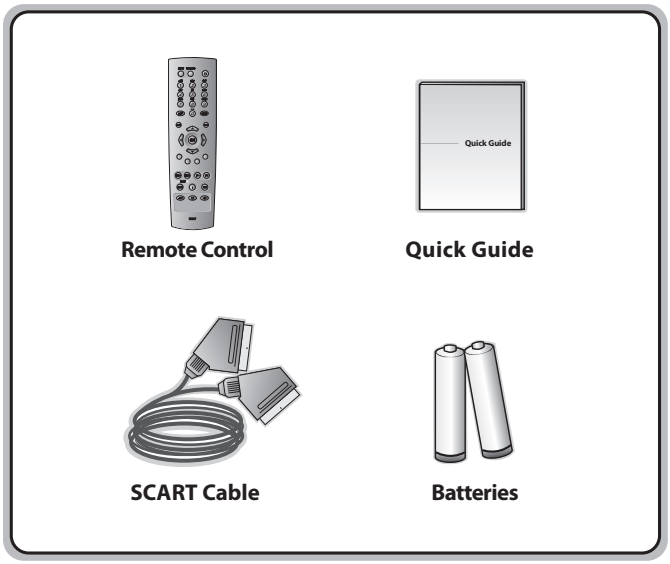
1. Before Using the Product

1.1 Package Contents

When you unpack your package contents, make sure you have all the necessary items shown in figure below. If any of items is missing or damaged, please contact your product dealer for replacement.

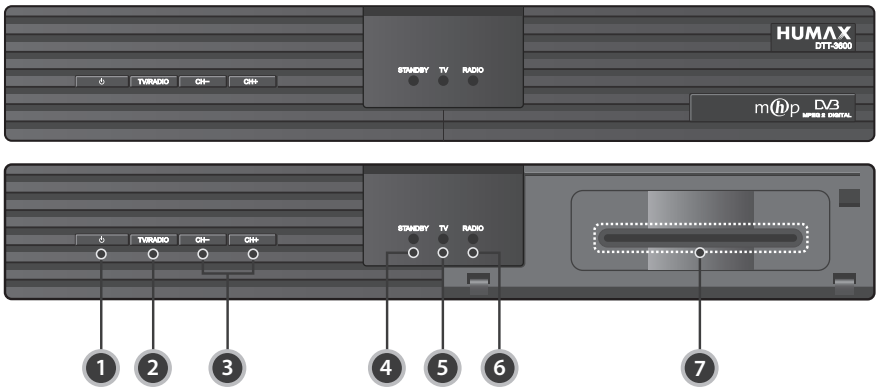


Note:

- Faults may occur if the remote control is left without battery for a long time. Always keep the battery inserted in the remote control.
- Package contents may vary according to area.

1. Before Using the Product

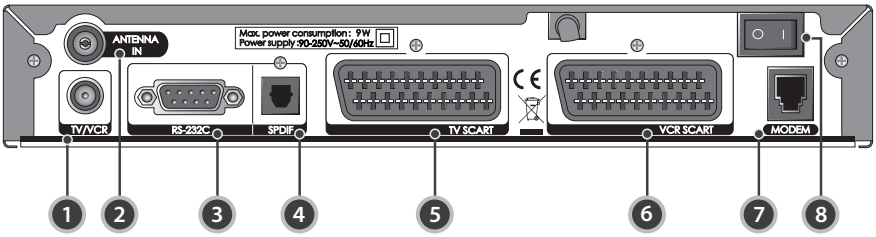
1.2 Front Panel



1. **STANDBY BUTTON**
   Switches between operation and standby modes.
2. **TV/RADIO BUTTON**
   Switches between TV and radio modes.
3. **CH-/CH+ BUTTON**
   Moves the TV/radio channel up or down.
4. **STANDBY LED**
   Red light is emitted when the product is in standby mode.
5. **TV LED**
   Green light is emitted when the product is in TV mode.
6. **RADIO LED**
   Amber light is emitted when the product is in radio mode.
7. **SMARTCARD SLOT**
   A slot for a Smartcard.

Note:
- The front of the product is subject to change without notice.
- For power saving mode, press the **STANDBY** button on the front at least for 5 seconds. Remote Control will not work on power saving mode. Press the **STANDBY** button on the receiver to recover the receiver from power saving mode.

1.3 Rear Panel

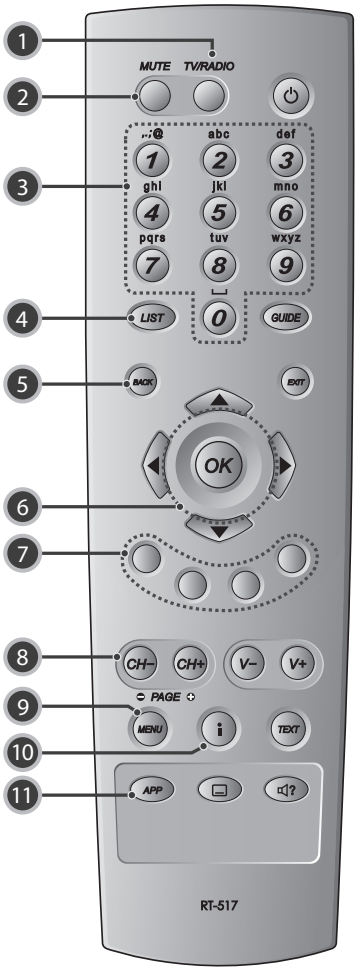


1. **TV/VCR**
   Connects to the RF IN of the TV or VCR using an RF cable.
2. **ANTENNA IN**
   Connects the aerial cable.
3. **RS-232C**
   Connects to the PC to update software.
4. **S/PDIF**
   Connects to the audio system using an S/PDIF cable. (digital audio)
5. **TV SCART**
   Connects to the TV using a TV SCART cable.
6. **VCR SCART**
   Connects to the VCR or DVD using a VCR SCART cable.
7. **MODEM**
   Connect to the telephone line.
8. **POWER SWITCH**
   Power on/off.

Note: The rear of the product is subject to change without notice.

1. Before Using the Product

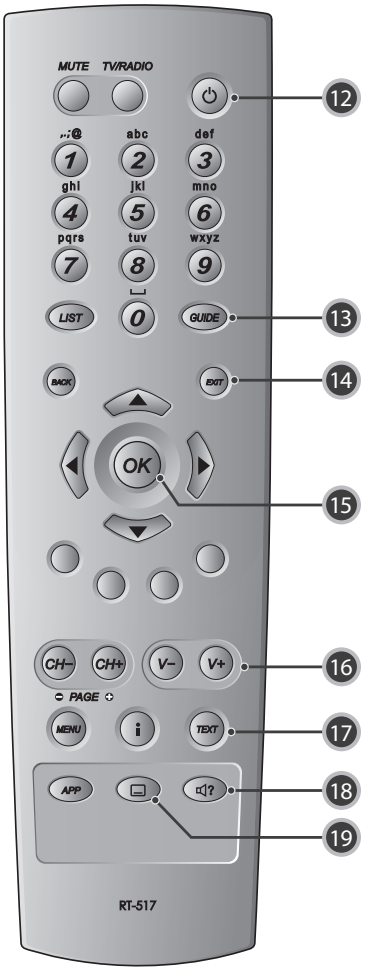
1.4 Remote control



1. **TV/RADIO**
   Switches between TV and radio modes.
2. **MUTE**
   Mutes or unmutes the audio temporarily.
3. **NUMERIC(0-9) BUTTONS**
   Enters a TV/radio channel number.
4. **LIST**
   Displays the channel list.
5. **BACK**
   Closes and returns to the previous menu and screen.
6. **ARROW BUTTONS**
   Changes the channel or moves the cursor up, down, left or right.
7. **COLOUR BUTTONS(R/G/Y/B)**
   Select the colour keys for interactive applications.
8. **CH-/CH+ or PAGE-/PAGE+**
   Changes the channel or page.
9. **MENU**
   Displays the main menu.
10. **i (INFORMATION)**
    Displays the channel and programme information.
11. **APP**
    Displays application list.

Note: The remote control is subject to change without notice.

1. Before Using the Product



12. STANDBY
Switches between operation and standby modes.

13. GUIDE
Displays the programme guide.

14. EXIT
Exits all On-Screen Display (OSD) screens.

15. OK
Selects a menu or con rms the selected operation.

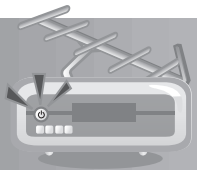
16. V-/V+
Adjusts the audio volume.

17. TEXT
Switches between the teletext and TV modes.

18. SOUNDTRACK
Displays the soundtrack list.

19. SUBTITLE
Displays the subtitle language list.

2. Setup

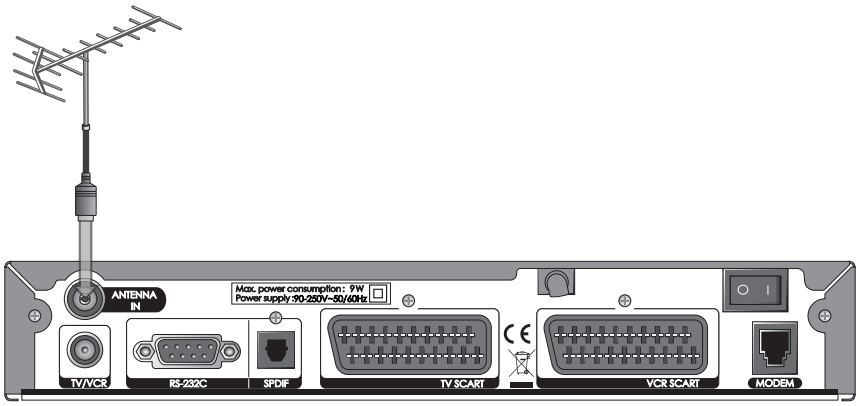


This chapter describes how to connect the product to the TV with the particular equipments for gaining optimum signal quality. The product provides various interfaces to connect to the TV, VCR or other devices. Select the most appropriate procedure depending on the equipment you have.

Note: If you encounter any problems setting up your product, please contact your local product distributor.

2.1 Connecting the Antenna

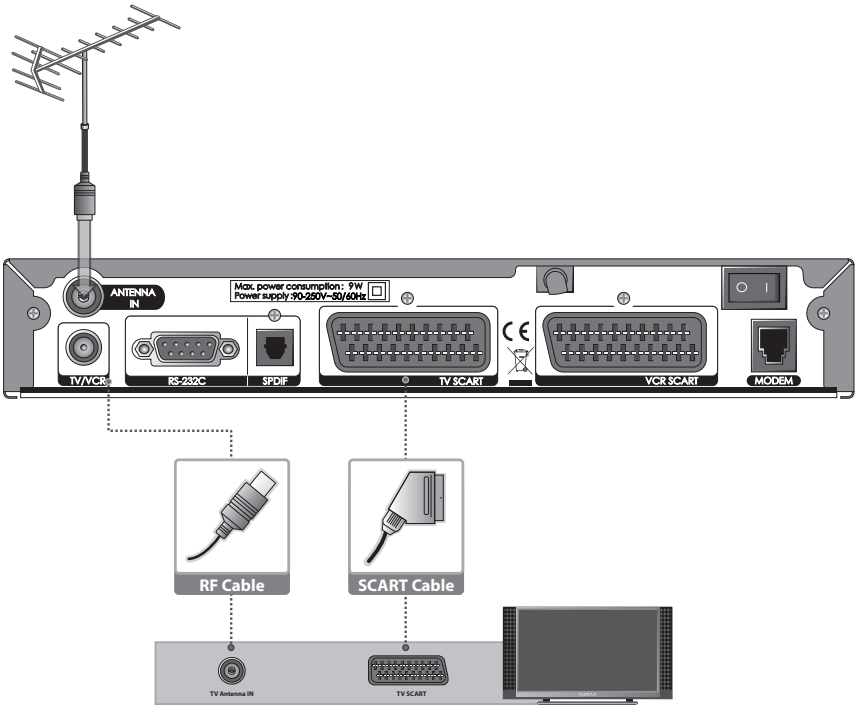
Connect your aerial to the ANTENNA IN.



2. Setup

2.2 Connecting the TV

Connect the product and the TV using a SCART or an RF cable.

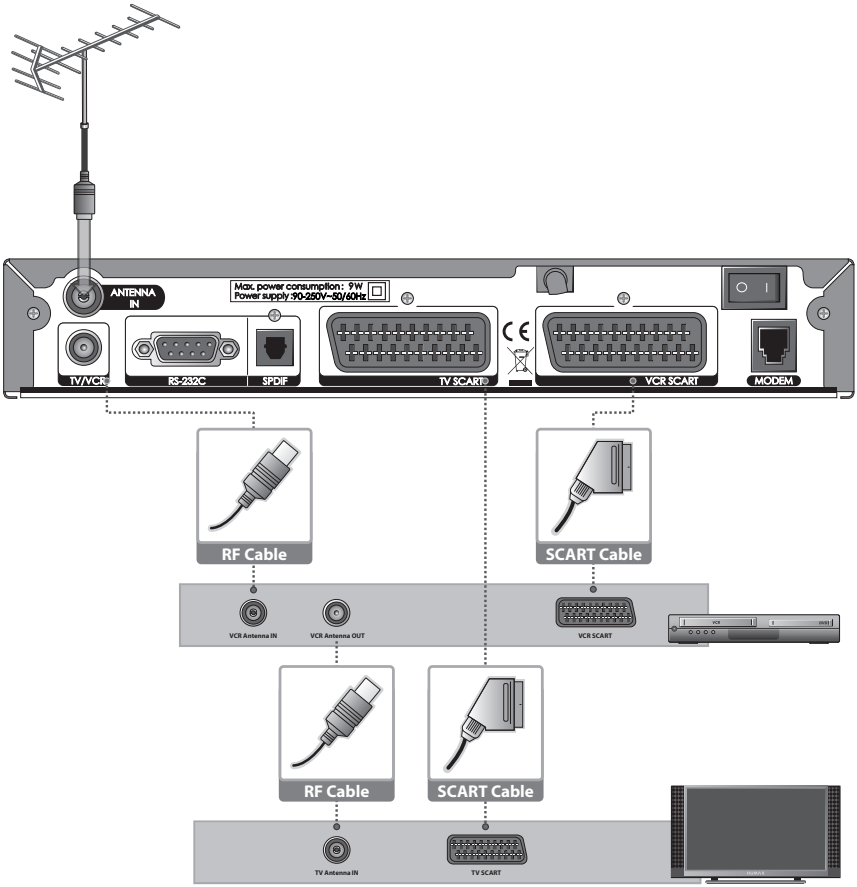


Note: Connect the product and the TV using an RF cable to watch analogue channels.

2.3 Connecting the TV and VCR

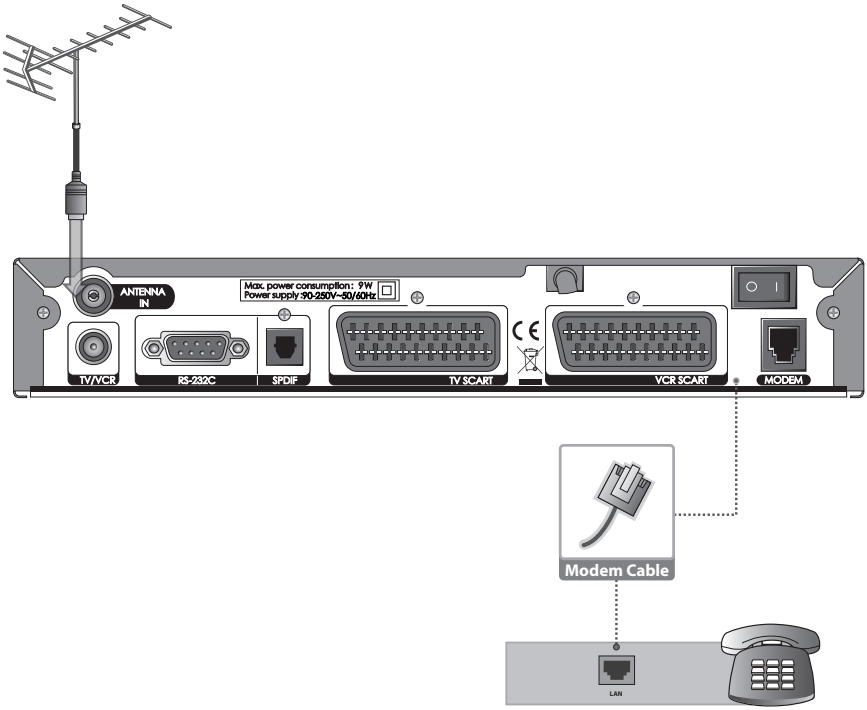
You can either:

1. Connect the product and the TV/VCR using a SCART cable.
2. Connect the product and the TV/VCR using an RF cable.



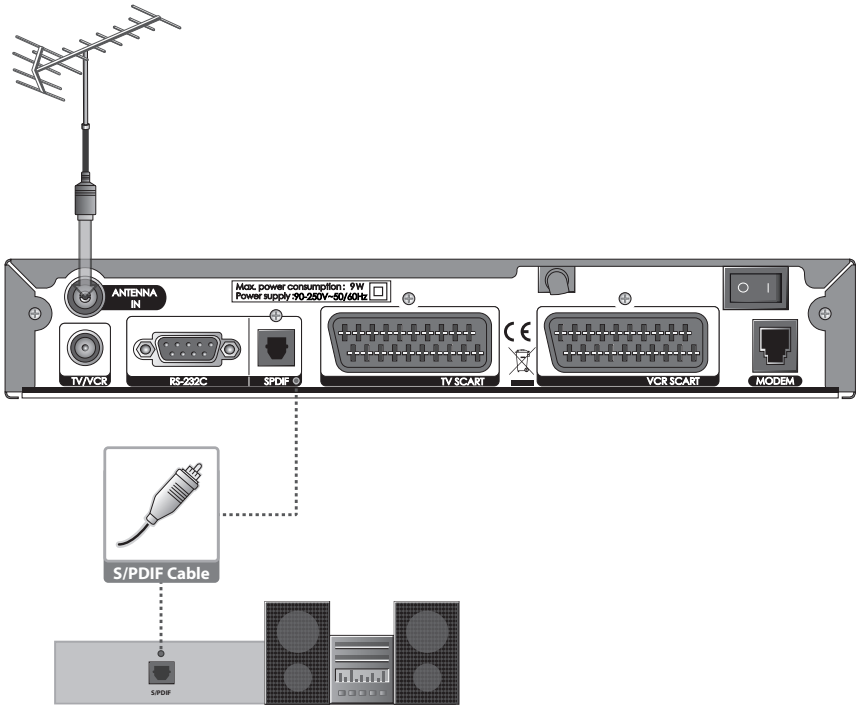
2.4 Connecting the Modem

Connect a modem cable to the product.



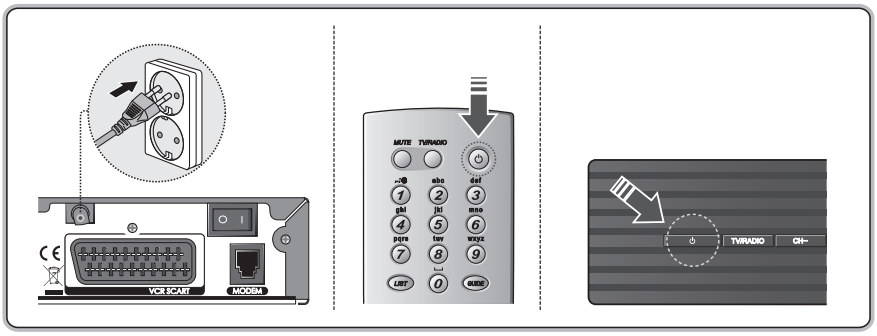
2.5 Connecting the Audio System

Connect the product and the Dolby Digital decoder for higher quality sound using an S/PDIF cable.



2.6 Powering On

1. Connect an adapter to a power input jack. Then, connect a plug of the adapter to a wall outlet.
2. Power on by pressing the **STANDBY** button on the remote control.



3. Basic Operation

3.1 Installation Wizard

When powering on your product for the first time after purchasing, the Installation Wizard is automatically started.

You can easily set-up using simple organization and options, and watch the broadcasting after completing the set-up procedure.

Note: The default PIN Code is set to **0000**.

1. Language

You can select menu, audio, and the subtitle language. Select the appropriate language from the list and press the **OK** button to save the selected language as a default language.

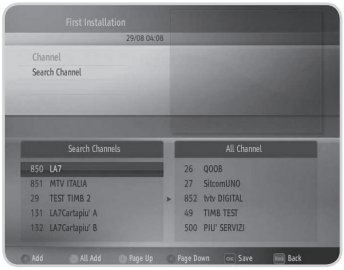
2. Search Channel

You can search channels by selecting Channel, Frequency and Bandwidth.
You can set whether to use the LCN using the ◀/▶ button.
Enter your desired channel, frequency and Bandwidth to search directly. Then press the **OK** button.

If you press the **RED** button, you can automatically search channels without entering any other information.

3. Basic Operation

Select the channel you want to apply to the LCN using the **RED** button. Press the **OK** button to move to the next.
Press the **RED** button to add a channel.
Press the **GREEN** button to add all channels.
Press the **OK** button to save.



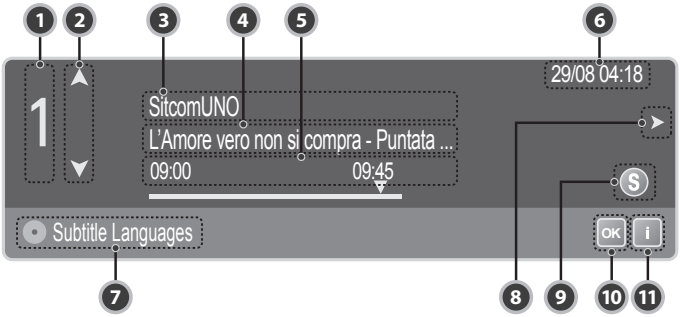
3.2 Basic Function

1. Program Banner

General Information

Program Banner is always displayed for a specific period of time whenever you switch channels. You can view the program banner by pressing the **i** button while watching a program. Press the **EXIT** button to hide the Program Banner.

The General Information is displayed as following on the screen.



1. Channel number
2. The information of the previous or next channel
3. Channel name
4. Program name

5. Program broadcasting time and progress bar: displays program playing time and progress bar.
6. Current time and date
7. Subtitle Language
8. Next program Information: displayed if next program information is provided. Press the button to display the next program information.
9. Icons

12 ALL	Represents parental level.
MHP	Displayed only when there is any MHP application.
	Displayed only when there is any teletext information.
S	Displayed only when subtitle information is available.

10. Confirm the selected operation.
11. Detailed program information

Note: If there is no available program information, program information is not displayed.

Detailed Program Information

You can see detailed information about the current program. Press the **i** button again while the program banner is displayed to view detailed information. Press the **i** button again to hide the information box.

Topical debate from Burton upon Trent, chaired by David Dimbleby. The p
anel includes former Foreign Secretary Sir Malcolm Rifkind and the write
r and broadcaster Rageh Omaar. [S]
29/08 04:18
27
SitcomUNO
L'Amore vero non si compra - Puntata ...
09:00
09:45

2. Volume Control/Mute

Press the **V-/V +** buttons to adjust the audio volume. Press the **MUTE** button to disables the sound temporarily.

Note: The mute function remains enabled while you change the channel.

3. Channel Change

You can switch the current channel using one of the following methods.

1. Press the **CH-/CH+** button.
2. Enter your desired channel numeric using the **NUMERIC(0-9)** button to move to the channel directly.
3. Press the **TV/RADIO** button to switch between TV channel and Radio channel.

Note: You can switch channel using the channel list or program guide. Please refer to ***3.2.6 TV Guide*** and ***3.2.7 Channel List*** for more information.

4. Subtitle

If the current program provides Subtitle information, you can select the language for the Subtitle.

1. Press the **SUBTITLE** button to display the subtitle language list.
2. You can also display the subtitle language list by pressing the **GREEN** button while the program banner is displayed.
3. Select your desired subtitle language. Then the subtitle will be displayed in the selected language at the bottom of the screen.

Note: Please refer to ***4.2.6 Subtitle*** and ***4.3.2 Language Options*** for more information.

5. Soundtrack

If the current program is available in multiple audio languages, you can select the language that you wish to listen to.

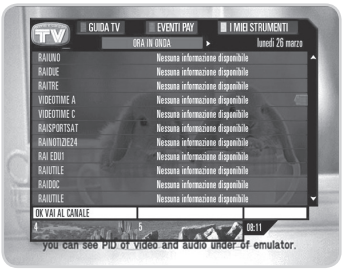
1. Press the **SOUNDTRACK** button to display soundtrack list and select your desired audio language.
2. Press the **EXIT** or **SOUNDTRACK** button to exit from the soundtrack list.

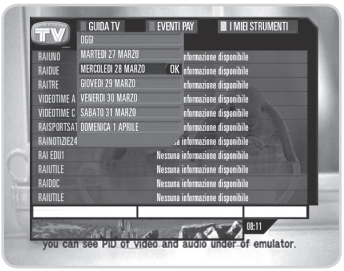
3. Basic Operation

6. TV Guide

The Program Guide displays program information about each channel, based on the date and time.

Press the **GUIDE** button.





7. Channel List

Three types of channel lists are provided for easy and quick channel searching. (All TV, All Radio, Favorite Channels)

1. Press the **LIST** button while watching a program to display the selected channel list.
2. Select your desired channel and press the **OK** button to change the channel. You can switch into other channel on the channel list using the ◀/▶ button.
3. Press the **EXIT** or **LIST** button to exit the channel list screen.

4. Menu

You can easily navigate the menu using the following instructions:

1. Press the **MENU** button to display the main menu screen.
2. Select a item using the ▲/▼ button.
3. Press the **OK** button to move from the menu to the sub-menu.
4. Press the ◀/▶ button to select option values.
5. Press the **OK** button to save your selection.
6. Press the **BACK** button to return to the previous-menu.
7. Press the **EXIT** button to close the MENU.

Note:
- Some menu items are access controlled. When accessing to the protected menu, you will be prompted to input the PIN Code. Input your PIN Code using the **NUMERIC(0-9)** button.
- The default PIN Code is set to **0000**.

Main Menu shows the following information :

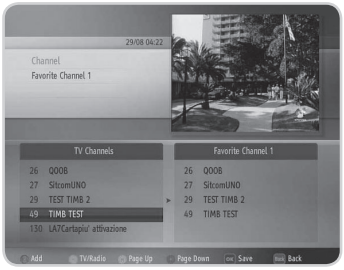
Channel	Favorite Channel, Block Channel, Change Channel No, Delete Channel
Preference	Parental Rating, Banner Duration, Change PIN Code, Application Auto-start, Channel Change Mode, Subtitle, Use LCN
System	A/V Setting, Language Options, Upgrade Software, Search Channel, Modem Setting, System Status, Signal Detection, Timezone, Factory Reset
Pay per View Services	Mediaset Premium, Iredeto Conditional Access, Conax Conditional Access, Pangea

4.1 Channel

1. Favorite Channel

You can create the favorite group.

1. Select the channel you want and press the **RED** button to add to the favorite list.
2. Press the **GREEN** button to switch from TV to Radio channel list.
3. Select the channel on the Favorite list and press the **RED** button to delete the channel.

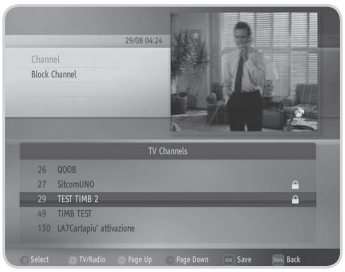


2. Block Channel

You can lock or unlock channels.

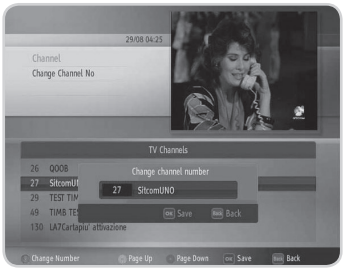
1. Press the **RED** button to lock or unlock.
2. Press the **GREEN** button to switch from TV to Radio channel list.

When switching to the locked channel, you must enter the PIN Code to watch a program. The Default PIN Code is **0000**. If you have forgotten your PIN Code, please contact your local product distributor.



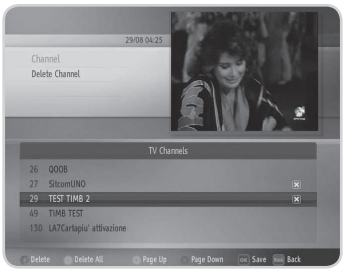
3. Change Channel No

You can change the channel number.
Select a channel you want and press the **RED** button.
Enter the channel number using the **NUMERIC(0-9)** buttons and press the **OK** button to save.



4. Delete Channel

You can delete one or all channels.
Press the **RED** button to delete one and press the **GREEN** button to delete all channels.
If you press the **RED** button again, it will be canceled.



4.2 Preference

1. Parental Rating

You can block programs according to the age level you have set. Select the age level. (No Control, 7years, 12 years, 14years, 18years, Lock All)

Note:

- You have to enter PIN Code to watch the program which is blocked by the age level.
- The default PIN Code is **0000**.

2. Banner Duration

You can set the duration of the mini EPG to be automatically displayed when you switch the channel. (0sec, 3sec, 5sec, 10sec, 15sec)

3. Change PIN Code

You can change the existing PIN Code into a new one. Input your PIN Code.
Input the New PIN Code and re-input to confirm.

Note:

- The default PIN Code is **0000**.
- If you have forgotten your PIN Code, please contact your local product distributor.

4. Application Auto-start

You can select Yes or No to set the MHP application starting attributes. If it is selected, all interactive application in auto-start mode will be started automatically at every modification of program.

5. Channel Change Mode

You can choose the channel navigation mode among All TV, All Radio and Favorite Channels.

6. Subtitle

You can select the subtitle On or Off.

7. Use LCN

You can select the LCN Yes or No.

4.3 System

1. A/V Setting

You can set the audio or video output control.

2. Language Options

You can set the language for the menu, primary audio and subtitle.

3. Upgrade Software

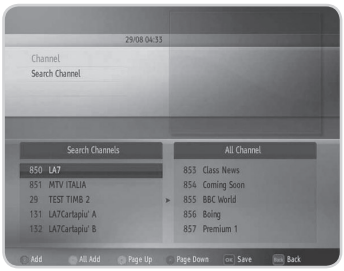
You can set the software upgrade attributes.
Please refer to ***5.1 OTA*** for more information.

4. Search Channel

You can search channels by selecting the channel, frequency and bandwidth. Enter your desired channel, frequency and bandwidth to search directly. Then press the **OK** button.

If you press the **RED** button, you can automatically search channels without entering any other information.

1. Press the **RED** button to add a channel.
2. Press the **GREEN** button to add all channels.
3. Press the **OK** button to save.

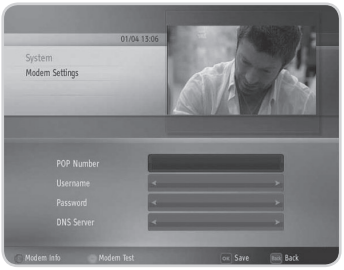


5. Modem Setting

1. You can set the modem information appropriate for your modem. Input your dial prefix and select the dial type between Tone and Pulse.
   Press the **RED** button to set the ISP information.
2. You can set the ISP information. Input your POP number, username, password and DNS server.
   Press the **GREEN** button to do modem test.
   Press the **RED** button to return to the modem information.

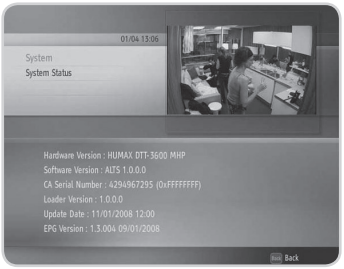
4. Menu

Il modem integrato nell'apparecchio é stato approvato in conformitá alla decisione del consiglio 98/482/EC (CTR 21) per il collegamento di un singolo terminale paneuropeo alla rete telefonica pubblica commutate (PSTN), in cui l'indirizzamento di rete, se fornito, avviene tramite segnalazione DTMF (Dual Tone Multiple Frequency). Tuttavia a causa delle differenze tra i servizi PSTN forniti nei vari paesi, tale approvazione non fornisce in se stessa una garanzia incondizionata del funzionamento corretto su tutti i terminali PSTN. Nel caso si dovessero verificare dei problemi, rivolgersi in primo luogo al fornitore dell'apparecchio.



6. System Status

You can view System information.
Confirm the information about Hardware Version, Software Version, CA Serial Number, Loader Version, Update Date and EPG Version.



7. Signal Detection

You can view the strength and quality of the signal of the channel that is currently on AV.

8. Timezone

You can set the GMT Offset for current time and select the Summer Time On or Off.

9. Factory Reset

You can reset factory information. Input your PIN Code. All the stored data can be initialized.

Note: The default PIN Code is **0000**.

Warning: Please note that once you perform Factory Reset, all the stored data will be deleted.

4.4 Pay Per View Services

1. Mediaset Premium
2. Irdeto/Conditional Access
3. Conax Conditional Access
4. Pangea

5. Software Update

In order to maintain proper performance of this product, it is essential to have the most up-to-date software. Please refer to http://www.humaxdigital.com for software update.

It is recommended that you upgrade your software at regular intervals.

5.1 OTA (Over the Air)

OTA, an abbreviation of "over the air", means downloading the software where the manufacturer reserves the right to decide when and where to release through aerial.

Over the Air(OTA) is simply another alternative for downloading software versions. However, the manufacturer reserves the right to decide when and where this software update can take place by "beaming" latest software versions over the air via aerial. The software update via aerial will only occur under the following circumstances.

1. The equipment should have appropriate loader software.

Caution: Please note that if you don't have normal loader software, the equipment may not be updated or operate after software update.

2. The manufacturer decides to release software downloading via a designated aerial
3. The equipment must be "tuned" properly to the same aerial that the manufacturer uses.
4. Update software when the quality of receiving signal strength is high. If the quality of receiving signal strength is not recommendable due to bad weather, perform the software upgrade later.

Caution:

- Please be careful to keep the power on and the power cord plugged in during software update. If the power is off during software update, it may cause fatal damage to the product.
- Please be careful not to pull out the Signal line (co-axial Cable) during software update. Update may be interrupted and the product may not work.

Note:

- The product cannot work at all during software update.
- It may take 5~10 minutes to update software.
- Scheduling operation cannot work during software update.

6. Trouble Shooting

6.1 Trouble Shooting

Before contacting your local service, please read the following instructions. If the product does not work normally after completing the following trouble shooting, please contact your local product distributor or service center.

1. **No message is displayed on the front panel or product has no power**
   - Check the main power cable and check if it is plugged into a suitable power outlet.
   - Check if Power Switch is On.
2. **No picture**
   - Make sure that the product is in Operation Mode.
   - Make sure that the AV Cable is firmly connected to the TV.
   - Make sure that aerial line is correctly connected to the equipment.
   - Check the brightness level of TV.
   - Check the channel is on air.
3. **Poor picture & sound quality**
   - Install aerial where there is no obstacle ahead.
   - Make sure to avoid putting mobile phone or mircrowave oven near around the equipment.
   - Use 75 coaxial cable to connect TV and aerial.
4. **No or poor sound**
   - Check the volume level of the TV.
   - Check the Mute status of the TV and product.
   - Press the Audio button to change the Sound Track type.
5. **Remote control does not operate**
   - To manipulate the equipment with remote control, the remote control's emitting part should directly point towards the receiving part of receiver's remote control.
   - Check the battery of Remote control.

6.2 Error Message

1. OSD Messages

Error message in full AV mode	Error Message in scaled AV mode	Possible causes	What to do
Signal is weak • Please check antenna and RF cable • Unplug and plug power cord	**Signal is weak** • Please select other channels	Antenna cable is unplugged.	Check if the antenna cable is plugged in.
Service not available		Failed channel tuning.	Reactivate Channel Search.
No Channels		No search results(channels).	Reactivate Channel Search.
Blocked by parental rating	**Blocked by parental rating**	User has set rating limits.	Enter password to cancel blocking.
Blocked by user	**Blocked by user**	User has set as blocked channel.	Enter password to cancel blocking.

2. Mediaset MMI Message

Error message in full AV mode	Error Message in scaled AV mode	Possible causes	What to do
YOU INSERT TICKET MEDIASET PREMIUM		Smartcard has not been inserted.	Insert Smartcard.
TICKET NOT LEGGIBILE VERIFICATION THE INSERTION BACK		Smartcard may be damaged or the Smartcard in use is not a NAGRA.	Consult distributor.
SMART CARD BLOCKED		Invalid card.	Insert Smartcard.
SMART CARD EXPIRED		Valid date has expired.	Insert Smartcard.
PURCHASE PEDIOD ALREADY ENDED		Period for purchasing programmes has ended.	
ILLEGAL CARD		Smartcard may be damaged.	Consult distributor.

3. Irdeto MMI Message

Error message in full AV mode	Error Message in scaled AV mode	Possible causes	What to do
E04 - Smart Card not inserted		Smartcard has not been inserted.	Insert a Smartcard.
E05 - Invalid Smart Card		Invalid Smartcard has been inserted.	Consult distributor.
E07 - Verifying Smart Card		Displays while verifying Smartcard.	
E16 - No rights on Smart Card		No authority given to access programme.	

7. Specification

Tuner & Channel	
Input Connector	IEC-Type, IEC 169-2, Female
RF Loop through Output connector	IEC-Type, IEC 169-2, male
Frequency Range	174MHz to 230MHz (VHF) 470MHZ to 862MHz (UHF)
Signal Level	-10 to -70dBm
Demodulation	OFDM
Mode	2K, 8K
FEC mode	1/2, 2/3, 3/4, 5/6 & 7/8
Guard Intervals	1/4, 1/8, 1/16 & 1/32
MPEG Transport Stream A/V Decoding	
Transport Stream	MPEG-2 ISO/IEC 13818
Profile Level	MPEG2 MP@ML
Input Rate	15 Mbit/s Max
Aspect Ratio	4:3, 16:9
Video Resolution	720x576
Audio Decoding	MPEG/MusiCam Layer I & II
Audio Mode	Single /Dual mono/ Stereo /Joint stereo
Memory	
Flash Memory	8 Mbytes
Graphics (MPEG) & System Memory	64 Mbytes
EEPROM	8 Kbytes
A/V & Data In/Out	
Video	TV-SCART (CVBS, S-Video, RGB) VCR-SCART (CVBS, S-Video)
Audio	TV-SCART, VCR-SCART
Digital Audio Out	1SPDIF
Modem PSTN	V.90
Data port	1 RS-232C (9pin D-SUB)

7. Specification

Power Supply	
Input Voltage	90-250V a.c., 50/60Hz
Type	Switching Mode Power Supply (SMPS)
Power consumption	Opearation: Max. 9W Standby: Max. 8W
Protection	Separate internal fuse & lightning protection
Physical Specification	
Size (W×H×D)	250x41x178.5(mm)
Weight (Net)	880g
Operating Temperature	0 °C to +45 °C
Storage Temperature	-10 °C to +70 °C

8. Service and Support

Information concerning troubleshooting, software upgrade and product support is provided in the following website. Should your product require warranty service, please contact the customer service center of which telephone number is on the website.

HUMAX

Italia	**Website:** **E-mail:**	www.humaxdigital.com/italy servizioclienti@humaxdigital.com

Note: For hardware repair, please visit our website.

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